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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/313,139 05/17/99 SCHOFIELD

K DON01-P-751

EXAMINER

LM02/0530

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ART UNIT	PAPER NUMBER

2736

DATE MAILED:

05/30/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/313,139

Applicant(s)

SCHOFIELD ET AL.

Examiner

Julie Lieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-151 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 50-111 and 132-151 is/are allowed.
- 6) ☒ Claim(s) 112-114 and 116-131 is/are rejected.
- 7) ☒ Claim(s) 115 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

1. This Office action is in response to the pre-amendment filed March 13, 00. New claims 112-151 have been added.
2. A terminal disclaimer has been received as a response to the double patenting rejection in the previous Office Action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 112-114, 118-128, and 130-131 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi et al (US Patent No. 5,414,461) in view of Simonelli (US Patent No. 4,817,948).

Claim 112:

Kishi et al. (Kishi) discloses a rear view vision system for a vehicle having a gear actuator, comprising:

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- a. an image capture device 100, 101 mounted at the rear of the vehicle and having a field of view directed rearwards of the vehicle
- b. a display system 200
- c. wherein display system displays a rearward image output of the image-capturing device when the gear actuator of the rearward image output of the image capture device is disabled when the vehicle's gear actuator is not in reverse gear.

The reference fails to disclose a wide-angle optical system in order to provide a view of the rearward area of the vehicle. However, the concept of providing wide-angle view to the display viewer in a vehicle to assure more safety coverage of the area around the vehicle is well known in the art as taught in Simonelli. Col. 3 lines 9-20. In light of this teaching, it would have readily recognized the desirability of using wide-angle view optics in the Kishi system for the same stated reason.

Claim 113:

Simonelli states that the wide angle simulating the peripheral vision of an operator. Though it is not stated specifically that the wide angle view comprises at a lower portion of the rearwards directed field of view of the image capture device, it would have been obvious to one skilled in the art upon Simonelli's suggestion to include the lower portion of the rearward directed field of view of the image capture device because it would further enhance the safety feature when the car is moving in reverse.

Claim 114:

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The wide-angle view in the combined system of Kishi and Simonelli comprises an area at the back of the vehicle.

Claim 118-119:

The use of distance measuring means in vehicle rearview vision including a system selected from group consisting of a radar, ultrasonic sensing, and an infrared detection are conventional in the art. Thus, it would have been obvious to one skilled in the art to use such distance measuring means in the system of Kishi because it provides the system with the information of the distance that is useful for processing and displaying the image to the driver.

Claim 120:

It appears that the system in Kishi has a field of view which symmetrical about the longitudinal axis of the vehicle. Further, it would have been obvious to one of ordinary skilled in the art to mount the image capturing device symmetrically about the longitudinal axis of the vehicle, in other words, in the middle so that the image would be take evenly on both sides in the rear of the vehicle.

Claims 121-122:

The display in Kishi is an pixelated-imaging array (fig. 13A and 13B). It is not clear whether the array comprises a CMOS imaging array. Nonetheless, a skilled artisan would have readily recognized the use of CMOS to accomplish a pixelated-imaging array because it is well known in the art, as the examiner takes official notice.

Claims 123-124:

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The display in Kishi is a head up display. However, it would have been obvious to one skilled in the art to use any kind of displays in the system of Kishi, for example as that shown in Simonelli. Simonelli makes use of a flat panel display with a CRT.

Claims 125-126:

The display in Kishi is a flat panel display comprises an LCD.

Claim 127:

The display in Kishi is positioned within the field of view of the driver without obstructing the view through the windshield.

Claim 128:

The display in Kishi is a head up display. Nonetheless, it would have been obvious to one skilled in the art to use any type of display such as a conventional dashboard display as desired because they are old and well know in the art.

Claims 130-131:

The display system in Kishi comprises a head up display of one of a projected image and a virtual image.

5. Claims 116-117 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi et al (US Patent No. 5,414,461) in view of Simonelli (US Patent No. 4,817,948) as applied to claim 112 above and further in view of Kamejima et al. (US Patent No. 4,549,208).

Claim 116:

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Neither Kishi nor Simonelli discussed that the output of the image capture device is corrected for distortion in the image captured by the wide-angle optical system. However, it would have been obvious to one of ordinary skill in the art to readily recognized the desirability of correcting distorted image as taught in Kamejima because a common sense to anyone that nobody likes to view distorted image and would have used correction for distorted image since it is conventional in the art.

Claim 117:

The correction for distortion is achieved electronically by Kamejima.

6. Claim 129 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi et al (US Patent No. 5,414,461) in view of Simonelli (US Patent No. 4,817,948) as applied to claim 112 above and further in view of Iwama (US Patent No. 5,634,709).

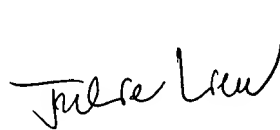
Claim 129:

As discussed above, it would have been obvious to one skilled in the art to use any type of display such as a conventional dashboard display as desired because they are old and well know in the art. It would then have been obvious to one skilled in the art to use a display, which occupies space on an interior rearview mirror as shown in Iwama. Though Iwama's display does not occupy the entire rearview mirror, one skilled in the art would have readily recognized implementing the display to occupy the entire mirror because it is used to show rear view of the vehicle during backup of the vehicle.

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Allowable Subject Matter

7. Claim 50-111 and 132-151 are allowed.
8. Claim 115 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 703-308-6738. The examiner can normally be reached on Mon-Fri, 9:30am-5:00pm.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on 703-305-4717. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6743 for regular communications and 703-308-6743 for After Final communications.
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-8576.



Julie Lieu
Primary Examiner
Art Unit 2736

jl
May 22, 2000